This checklist is not intended to be exhaustive or in any way limiting necessary steps and actions. You may take additional actions based upon the circumstances of the actual situation.

7.1.6. Passage Plan (Berth to Berth) as per requirements of IMO Resolution A.893(21), Annex 25 of SOLAS V.

This Plan shall be used with appropriate ISM and ISPS Procedures and Forms regarding to Sea Passage and Port stay. International and national Safety, Environmental and Security requirements have to be taken into account as well as a good seamanship and practice.

Vessel: " MARE SICULUM " **Date:** 20.07.2014 **Voyage No.: N003**

A) General information about condition and state of the vessel, Pre-Arrival and Pre-Departure

Port of Departure :	CAPE TOWN	**Port of Destination :**	NEW YORK
Max. Sailing Draft (m):	9.20 m	**Total Distance (miles):**	6802 N.M
Estimated Max. Arrival Draft (m):	9.00 m	**Begin of Sea Passage(Date and Time):**	20.07.14 | 1200
Condition (loaded, ballast):	LOADED	**End of Sea Passage (Date and Time):**	
Departure (Date and Time):	20.07.14 | 1118	**Arrival on the Berth (Date and Time):**	
ETA Pilot (Date and Time):	06.08.2014 / 0500 LT		

Charts and publications current edition and corrected up to weekly NtM No. 28 **Dated** 09.07 **.2014** ____.

B) Maximum Squat and Under Keel Clearance Calculation

It must be taken into account that if the ship in shallow waters and at forward speed, there is a danger to go aground due to phenomenon known as "squat". Therefore the calculation of the minimum under keel clearance shall include maximum squat parameter. The calculation of the minimum under keel clearance is not limiting necessary observations of it during passage by all available means, such as echo-sounder. The squat calculation shall be done on board in range between minimum and maximum manoeuvring speed of the vessel, in 1 knot difference. Confined water condition is the maximum squat equal 2 x open water condition. The speed "V" is the ship speed relative to the water. Tidal speed and direction of current must always be taken into account by the Master and/or Bridge Officer.

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Maximum Squat Calculation		
Speed in knots relative to the water (V)	Confined Waters (meters)	Open Waters (meters)
SEE	NEXT	PAGE

Maximum Squat (in m) = (V^2 / 100) x Cb, where

Cb – block coefficient, ship specific from the Stability Booklet

ANTICIPATED UNDER KEEL CLEARANCE CALCULATION (in M)

Controlling Draft (in m) = Minimum Depth + Predicted Height of Tide;

Deep Navigational Draft (in m) = Maximum Draft + Calculated squat;

Under Keel Clearance (in m) = Controlling Draft – Deep Navigational Draft

C) Port of Departure

Important navigational and communication information have to be entered in the below Tables.

Port/Terminal	CAPE TOWN CONT. TERMINAL	**Squat**	SEE SQUAT
Name/Number of Berth	F	**Min. Under Keel Clearance**	1.0 m
Max. Draft	9.20 m	**Pilot Off**	1136
Max. Air-draft	45.48	**Outbound Pilotage Time**	.6
Speed Restriction	NIL	**Density of Water**	1.025

VHF Ch. VTS	**16,14**
VHF Ch. Port Control	**16,12,14**
VHF Ch. Pilots	**16,12,14**
VHF Ch.	

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Tidal Information

Standard Port: _____ Time Differences: HW - LW - Height Differences: HW - LW –

Low/ High Water	Date	Time	Height	Remarks/ Method of calculation
HW	20.07.14	1013	1.2	ADMIRALTY TIDE TABLE NP 202, VOL. (2)
LW	20.07.14	0404	0.6	ADMIRALTY TIDE TABLE NP 202, VOL. (2)
HW	20.07.14	2244	1.3	ADMIRALTY TIDE TABLE NP 202, VOL. (2)
LW	20.07.14	1631	0.7	ADMIRALTY TIDE TABLE NP 202, VOL. (2)

Passage from Berth to Pilot Station

In the following table the important waypoints to be entered by passing from Berth to Pilot Station. If passing various courses between waypoints, so should be recorded under "True Course"; the time of course changing to be recorded into "Time" as appropriate.

Landmark / Remarks	True Course	Average Speed	Time	Charts	Name of Helmsman
WPT 04 33-54.3 S, 018-26.2 E	001	5	11.36	1846	AB 4 MYO NEWS
WPT 03 33-53.9 S, 018-26.2 E	347	6	1140	1846	— " —
WPT 02 33-52.5 S, 018-25.8 E	353	6	1144	1846	— " —
WPT 05 33-51.1 S, 018-25.6 E	270	10	1147	4148	— " —
WPT 186 33-51.1 S, 018-24.0 E				4148	

D) Pilot to Pilot Passage Planning

The parameters in the columns "True Course" and "DTG" are related to the next waypoint; Under Keel Clearance is related to the depth on appropriate chart, if deepwater passage than "DW" letters to be entered.

WP	Marks	Latitude	Longitude	True Co.	DTG	Steam Time	UKC	Charts	Remarks / Preferred fix method & frequency
01	WPT 186	33°51.1' S	018°24.0' E	270.0°	6,802 nm		DW	4148	Landmarks and/or GPS pos. 15 to 30 mins. Interval

MV "MARE SICULUM"

Vessel Max. Breadth	32.25	**CAUTION**
Resulting required Dyn. UKC	**0.48**	
1.5% of Vessel Breath or min. 0.30 m		***More Speed -***
Vessel Block coefficient	0.6134	***More Draft !!!***
Required safety Margin	***1.00***	All measures in Meters and decimals (centimeters)

Draft in Confined Waters in meters

Speed in kn	Vessels draft	Squat	Draft + Squat	Draft + Squat + Dyn. UKC	Required Safe water depth	Engine setting for this speed
3	9.20	0.11	9.31	9.79	10.79	
4	9.20	0.20	9.40	9.88	10.88	
5	9.20	0.31	9.51	9.99	10.99	
6	9.20	0.44	9.64	10.13	11.13	
6.7	9.20	0.55	9.75	10.23	11.23	Dead slow
8	9.20	0.79	9.99	10.47	11.47	
9	9.20	0.99	10.19	10.68	11.68	Slow
11.2	9.20	1.54	10.74	11.22	12.22	half
12	9.20	1.77	10.97	11.45	12.45	
13	9.20	2.07	11.27	11.76	12.76	
14.6	9.20	2.62	11.82	12.30	13.30	Full Maneuver
15	9.20	2.76	11.96	12.44	13.44	
16	9.20	3.14	12.34	12.82	13.82	
17	9.20	3.55	12.75	13.23	14.23	
18	9.20	3.97	13.17	13.66	14.66	
19	9.20	4.43	13.63	14.11	15.11	
20	9.20	4.91	14.11	14.59	15.59	
21	9.20	5.41	14.61	15.09	16.09	
23.46	9.20	6.75	15.95	16.44	17.44	Full Sea

Draft in Open Waters in meters

meters

3	9.20	0.06	9.26	9.74	10.74	
4	9.20	0.10	9.30	9.78	10.78	
5	9.20	0.15	9.35	9.84	10.84	
6	9.20	0.22	9.42	9.90	10.90	
6.7	9.20	0.28	9.48	9.96	10.96	Dead slow
8	9.20	0.39	9.59	10.08	11.08	
9	9.20	0.50	9.70	10.18	11.18	Slow
11.2	9.20	0.77	9.97	10.45	11.45	Half
12	9.20	0.88	10.08	10.57	11.57	
13	9.20	1.04	10.24	10.72	11.72	
14.6	9.20	1.31	10.51	10.99	11.99	
15	9.20	1.38	10.58	11.06	12.06	
16	9.20	1.57	10.77	11.25	12.25	
17.23	9.20	1.82	11.02	11.50	12.50	Full Maneuver
18	9.20	1.99	11.19	11.67	12.67	
19	9.20	2.21	11.41	11.90	12.90	
20	9.20	2.45	11.65	12.14	13.14	
21	9.20	2.71	11.91	12.39	13.39	
21.4	9.20	2.81	12.01	12.49	13.49	Full Sea

Minimum water depth [ ] meters

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02	WPT 489	33°51.1' S	018°21.0' E	*319.9°*	*6,800 nm*		DW	4148	Landmarks and/or GPS pos. 15 to 30 mins. Interval
03	WPT 490	33°40.0' S	018°09.8' E	*301.4°*	*6,796.6 nm*		DW	4151	Landmarks and/or GPS pos. 15 to 30 mins. Interval
04	WPT 491	33°35.0' S	018°00.0' E	*310.8°*	*6,786.9 nm*		DW	4146	Landmarks and/or GPS pos. 1 hr. Interval
05	WPT 502	37°56.0' N	070°21.0' W	*314.5°*	*221.2 nm*		DW	4403	Landmarks and/or GPS pos. 1 hr. Interval
06	WPT 500	40°08.0' N	073°13.0' W	*304.7°*	*33.1 nm*		DW	2755	Landmarks and/or GPS pos. 30 mins to 1 hr. Interval
07	WPT 501	40°26.8' N	073°48.5' W		*0.0 nm*		DW	2755	Landmarks and/or GPS pos. 30 mins to 1 hr. Interval

GC routes should be plotted as number of RL legs.

E) Points and areas of special concern and "Non-Go Areas" (obstacles, wrecks, congested traffic area, etc.)

All important for safe navigation areas and points on the route must be recorded. "Non-Go Areas" have to be marked on appropriate charts accordingly.

Chart	Position or Landmark	True course	True bearing	Radar Range	Min. Distance off	REMARKS
4403	37-56.0 N, 070-21.0 W	311		12		ENTERING ECA ZONE
2860	39-36.5 N , 72-25.0	311	043	12	2 NM	UNEXPLODE ORDINANCE

F) Passage route segregation on Sections of concern

The Passage route has to be segregated on three Sections of concern: **I, II and III.**
SECTION I: Sea/Ocean Passage: BOSP to EOSP;
SECTION II: EOSP to POB, Pilot off to BOSP or points and areas of special concern;
SECTION III: Pilotage to/from the berth.
Data for each Section must be determined by Master only.
Please note that the Sections I and II can be mixed, i.e. Section II can be entered into the Section I in case the ship has in her Sea Passage any points or areas of special concern. All available means must be used to observe the ship's **position**. In the **"Bridge Team"** state the persons by Rank occupying the bridge. **"Max.Speed"** – maximum permissible or recommended speed for appropriate SECTION. **"Rudder Control"** – autopilot or manual.

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"Alternative Action" – contingency plan for alternative action must be entered to place the vessel in deep water or proceed to a port of refuge or safe anchorage in the event of any emergency necessitating abandonment of the plan, taking into account existing shore-based Emergency response arrangements and equipment and the nature of the cargo and of the emergency itself.

Parameters	SECTION I	SECTION II	SECTION III
Position Start			
Bridge Team	0000-0400 2/O 1200-1600 0400-0800 C/O 1600-2000 0800-1200 3/O 2000-2400 Master on Bridge	Bridge Team Master Duty Officer Helmsman Watch Man	Bridge Team Master Pilot Duty Officer Helmsman Watch Man
Max. Speed	19 Knots	10 Knots	8 Knots
Rudder Control	Autopilot	Manual	Manual
Alternative Action	Switch to manual rudder control. Reduce seed. Call Master. Advice engine to be stand-by as soon as possible. When engine ready slow down and if needed stop engine. Keep vessel well clear from any dangerous area, shallow water or obstruction. Keep well clear from other vessels.	Switch to manual rudder control. Call Master at designated position. If no response from Master, advice engine to be stand-by as soon as possible. When engine ready slow down and if needed stop engine. Keep vessel well clear from any dangerous area, shallow water or obstruction. Keep well clear from other vessels. Both anchors to be ready. Contact Port Authorities / Pilots. If Master is not on the bridge, do not approach to pilot station, keep vessel safe in deep water and at safe distance from other vessels. Both anchors to be ready and forward station ready to drop the anchor. Watch out for transit vessels of all kinds in traffic lanes.	Switch to manual rudder control. Consult harbour pilot about positions of safe passage and anchoring areas. Both anchors ready and bosun standby forward on anchors. Proceed to anchorage area with safe speed keeping safe under keel clearance. Drop the anchor or proceed to deep water safe area. Vessel can safely anchor at marked or designated anchorage areas.

G) Port of Arrival

Tidal Information

Standard Port: _____ Time Differences: HW - LW - Height Differences: HW - LW –

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Low/ High Water	Date	Time	Height	Remarks/ Method of calculation
LW				ADMIRALTY TIDE TABLE NP 202, VOL. (2)
HW				ADMIRALTY TIDE TABLE NP 202, VOL. (2)
LW				ADMIRALTY TIDE TABLE NP 202, VOL. (2)
HW				ADMIRALTY TIDE TABLE NP 202, VOL. (2)

Passage from Pilot Station to Berth

In the following table the important waypoints to be entered by passing from Pilot Station to Berth. If passing various courses between waypoints, so should be recorded under "True Course"; the time of course changing to be recorded into "Time" as appropriate.

Landmark / Remarks	True Course	Average Speed	Time	Charts	Name of Helmsman
WPT 502 P/S 40-26.8 N, 073-48.5 W	288.1°			3204	
WPT 02 40-27.3 N, 074-50.5 W	307.6°			3204	
WPT 03 40-28.3 N, 073 -52.2 W	296.8°			3459	
WPT 04 40-31.5 N, 074-00.5 W	319.4°			3459	
WPT 05 40-32.3 N, 074-01.4 W	347.4°			3459	
WPT 06 40-36.4 N, 074-02.6 W	337.6°			3456	
WPT 07 40- 38.8 N, 074-03.9 W	291.5°			3456	
WPT 08 40-39.1 N, 074-04.9 W	246.7°			3456	
WPT 09 40-38.87 N, 074 05.6 W	265.2°			3457	
WPT 10 40-38.8 N, 074-06.7 W	251.8°			3457	
WPT 11 40-38.6 N, 074-07.5 W	270.0°			3457	

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WPT 12 40-38.6 N, 074-08.1 W	260.7°			3457	
WPT 13 40-38.5 N, 074-08.9 W	333.1°			3457	
WPT 14 40-38.8 N, 074-09.1 W	025.5°			3457	
WPT 15 40-40.4 N, 074-08.1 W				3457	

Important navigational of communication information have to be entered in the below Tables.

ETA	06-08-/0500	**Squat**	**See squat page**
Port/Terminal	PNCT	**Min. Under Keel Clearance**	**1.0 m**
Name/Number of Berth		**Speed Restriction**	
Max. Draft	9.00 m	**Density of Water**	**1.025**
Max. Air-draft	45.80 m		

VHF Ch. VTS	**12,14**
VHF Ch. Port Control	**16,12,14**
VHF Ch. Pilots	**13,16,73**
VHF Ch.	

H) Publications used

Publications	POD	Sea Passage	POA
List of Lights	NP 77 Vol. D	NP 77 Vol. D,NP 82 J	NP 82 Vol. J
Admiralty List of Radio Signal	NP 286(8)	NP 286(8),286(5)	NP 286(5)
Sailing Directions	NP 02	NP 02, NP 68	NP 68
Tide Tables	NP 203 Vol.3	NP 202 Vol. 2, NP 203 Vol. 3	NP 202 Vol. 2
Others	Ocean Passages For the World-Ship's Routeing	Ocean Passages For the World-Ship's Routeing	Ocean Passages For the World-Ship's Routeing

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I) Additional information

Any particular information relevant to this Passage Plan should be recorded, i.e. Expected weather Conditions, particular features of Port, approaching, communication, current, tides, hazards, buoys systems, etc. if appropriate.

Condition	POD	Sea Passage	POA
- Expected weather	Local station, NAVTEX, VHF information, weather forecast from INM – C.	NP 100 Mariners Handbook, Sailing Directions NP 44 / Globe Wireless Weather Service / Weather forecast from INM-C acc. to present position / NAVTEX / Facsimile charts acc. to programmed schedule in facsimile receiver (if any).	Local station, NAVTEX, VHF information, weather forecast from INM – C.
- Current		Routing Chart BA/ Sailing Directions NP 44/ NP 100 Mariners Handbook	
- Tides	ATT 203-11 Information on the charts and from pilot; NP44	Sailing Directions NP 44 / NP 100 Mariners Handbook, / ATT 203-11 acc. to present position	ATT 203-11 Information on the charts and from pilot; NP44
-			

Notes or Remarks:	Approved:		Acknowledged	
-	Master	Capt. Padjen Branimir	Ch. Off.	Sign Milat Damir
	Date	20.07.2014	2nd Off.	Sign ~~Pantolero~~ Joey Aguilar
	Sign		3rd Off.	Sign Skrzypski Radoslaw